

Remarks:

This application has been reviewed carefully in view of the Office Action mailed December 29, 2005 ("the Office Action"). In a First Ground of rejection, the Office Action rejected claims 1-4, 12-16 and 20-23, under 35 U.S.C. § 102(b), as being anticipated by Weiss. In a Second Ground of rejection, the Office Action rejected claims 1-6 and 20-23, under 35 U.S.C. § 102(e), as being anticipated by Wong. In a Third Ground of rejection, the Office Action rejected claims 17-19, under 35 U.S.C. § 103(a), as being unpatentable over Weiss. Applicants note with appreciation that claims 7-11 were objected to as being dependent upon rejected base claim, but found allowable if rewritten in independent form including all the limitations of the base claim and an intervening and claims.

The above-described objections and rejections are addressed as follows:

I. Without Translation, the Citation of Weiss Is Inappropriate

"Generally an abstract does not provide enough information to permit an objective evaluation of the validity of what it describes. Thus, an abstract is even less reliable a basis to extrapolate the alleged teachings of the underlying document to different circumstances. Abstracts function to alert a reader to disclosures of possible interest. They are little more reliable than headlines or brief newspaper articles." Ex parte Gavin, 62 U.S.P.Q.2d 1680, 1684 (B.P.A.I. 2001) (unpublished).

"Citation of an abstract without citation and reliance on the underlying scientific document itself is generally inappropriate where both the abstract and the underlying document are prior art.⁵ It is our opinion that a proper examination under 37 CFR Section 1.104 should be based on the underlying documents and translations, where needed: Accordingly, the preferred practice is for the examiner to cite and rely on the underlying document" Id. (Note 5 states that "[i]n the circumstance where only the abstract is prior art, an examiner is nevertheless under a burden to establish that the content of the abstract, along with other prior art relied upon, is legally sufficient to support a rejection.")

Given that the entire Weiss reference was identified as cited art, given that the underlying document appears to have a publication date early enough to serve as a basis to be prior art, given that the discussion in the Office Action appears to require consideration of the Weiss figures (which are labeled and separately described only in German), and given that the abstract does not appear to be legally sufficient to support a rejection by itself, under the procedure recited on page 1684 of Ex parte Gavin, the applicants request the examiner supply a translation of the entire Weiss document.

II. Weiss Fails to Anticipate Claims 1, 3, and 13-16

In a First Ground of rejection, the Office Action rejected claims 1-4, 12-16 and 20-23, under 35 U.S.C. § 102(b), as being anticipated by Weiss. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See*, M.P.E.P. § 706.02, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Weiss fails to disclose at least the following features of the presently amended claims rejected in Ground of Rejection #1:

Claim 1: the enclosure is configured such that coolant supplied to the distribution plenum is received into the enclosure in a direction along a second lateral dimension with respect to the longitudinal dimension, and such that coolant received by the exhaust plenum is channeled out of the enclosure in the direction along the second lateral dimension. (emphasis added)

Claim 3: the enclosure includes a pump plenum configured to laterally receive the coolant received into the enclosure; the pump is configured to receive coolant from the pump plenum; and the tier is configured to receive coolant from the pump.

Claim 14 (directly), and claims 15-16 (indirectly from claim 24): the plurality of orifices are configured as jets.

Additionally, claims 3 and 13-14 depend from claim 1.

Applicants note that the specification recites that "the term "jet" is used in this context to indicate that the apertures are restricted enough in size to cause a significant pressure differential across the distribution-port-wall" (see, the specification, page 11, lines 23-25, emphasis added). This distinction is relevant to performance, as "[t]he pressure differential across the distribution-port-wall 201 causes the coolant to emerge from the apertures with both an increased velocity and reduced mass flow, as compared to having large apertures or no distribution-port-wall. While the reduced, mass flow rate distributes less coolant (which is detrimental to heat dissipation), the increased velocity decreases the convective film boundary on the cooled components (which is advantageous to heat dissipation)." See, the specification, page 12, lines 11-16.

Because the cited art fails to teach or suggest the above-noted features in claims 1, 3 and 13-16, the Office Action fails to establish a *prima facie* case of anticipation. Accordingly, the rejection of these claims under 35 U.S.C. § 102(b) is improper, and the applicants respectfully request it be withdrawn.

III. Wong Fails to Anticipate Claims 1 and 3

In a Second Ground of rejection, the Office Action rejected claims 1-6 and 20-23, under 35 U.S.C. § 102(e), as being anticipated by Wong.

Wong fails to disclose at least the following features of the claims rejected in Ground of Rejection #2:

Claim 1: wherein the one or more assemblies that the first tier is configured to support comprise a plurality of planar cards stacked along a first lateral dimension, with respect to the longitudinal dimension, across the first tier;

wherein the enclosure defines a distribution plenum longitudinally contiguous to the first longitudinal end of the first tier, the distribution plenum being configured to distribute received coolant through the first longitudinal end of the first tier

wherein the enclosure further defines an exhaust plenum longitudinally contiguous to the second longitudinal end of the first tier, the exhaust plenum

being configured to channel away coolant received from the second longitudinal end of the first tier; and

the enclosure is configured such that coolant supplied to the distribution plenum is received into the enclosure in a direction along a second lateral dimension with respect to the longitudinal dimension, and such that coolant received by the exhaust plenum is channeled out of the enclosure in the direction along the second lateral dimension. (emphasis added)

Claim 3: the enclosure includes a pump plenum configured to laterally receive the coolant received into the enclosure; the pump is configured to receive coolant from the pump plenum; and the tier is configured to receive coolant from the pump.

Because the cited art fails to teach or suggest the above-noted features in claims 1 and 3, the Office Action fails to establish a *prima facie* case of anticipation. Accordingly, the rejection of claims 1 and 3 under 35 U.S.C. § 102(e) is improper, and the applicants respectfully request it be withdrawn.

IV. Weiss Fails to Render Claims 17-19 Unpatentable

In the Third Ground of rejection, the Office Action rejected claims 17-19, under 35 U.S.C. § 103(a), as being unpatentable over Weiss. More particularly, the Office Action recites that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to use air fan(s) creating such a range of air velocity, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art.

Initially, applicants note that the claims recite that the "jets emit coolant at a velocity" rather than that fans emit coolant at some given velocity. Furthermore, as recited in the Background of the Invention, it is known to have air flows unidirectionally through the depth dimension of a tier, tangential to the cards, typically at speeds of 1 m/s to 2 m/s, and possibly at speeds approaching 4 m/s (see, the specification, page 3, lines 1-4).

Because Weiss fails to disclose jets that are "restricted enough in size to cause a significant pressure differential across the distribution-port-wall" (as discussed above in section II), it fails to disclose that the jets emit coolant at a high velocity, such as ≥ 4 m/s, ≥ 6 m/s or 6-8 m/s.

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To any extent that the examiner is making assertions of fact based on official notice, common knowledge, or personal knowledge of the examiner regarding the fan sizes that a person skilled in the art would consider in discovering 'the optimal or workable range' of a computer cooling system fan, in accordance with 37 C.F.R. § 1.104 (d)(2) and to preserve the applicants' arguments on appeal, the applicants request that the examiner provide documentary evidence or an affidavit that supports the rejections of claims based on the official notice, common knowledge, or personal knowledge of the examiner. *See, In re Lee*, 277 F.3d 1338, 1344-45, 61 U.S.P.Q.2d 1430, 1435 (Fed. Cir. 2002) (finding that reliance on "common knowledge and common sense" did not fulfill the PTO's obligation to cite references to support its conclusions as PTO must document its reasonings on the record to allow accountability and effective appellate review).

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Because the cited art fails to teach or suggest jets that emit coolant at the velocities described in claims 17-19, the Office Action fails to establish a *prima facie* case of obviousness. Accordingly, the rejection of these claims under 35 U.S.C. § 103(a) is improper, and the applicants respectfully request it be withdrawn.

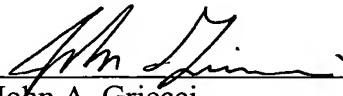
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IV. Conclusion

In view of the foregoing, the applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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